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Indian Standard
SPECIFICATION FOR
HOG GAMBRELS

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SPECIFICATION FOR HOG GAMBRELS

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Indian Standard

SPECIFICATION FOR HOG GAMBRELS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 11 December 1972, after the draft finalized by the Meat and Meat Products Sectional Committee had been approved by the Agricultural and Food Products Division Council.

0.2 Hog gambrels are used for hanging and moving dehaired carcasses of pigs in an abattoir or a bacon factory so as to avoid contamination of the carcasses from floor and to ensure ease in further examination and processing of the carcasses.

0.3 Recently the indigenous production of abattoir tools and equipment like gambrels, shackle chains and rails has increased considerably. The formulation of Indian Standards for the equipment would, it is hoped, encourage quick development of this industry and would help in manufacturing good quality tools and equipment.

0.4 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test, shall be rounded off in accordance with IS:2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the material, dimensions and other requirements for hog gambrels. These hog gambrels are suitable for semi-automatic type of abattoirs.

2. DESCRIPTION

2.1 The hog gambrel shall consist of a gambrel rod curved at an angle at both the ends and a hook rod at the centre for connection.

*Rules for rounding off numerical values (*revised*).

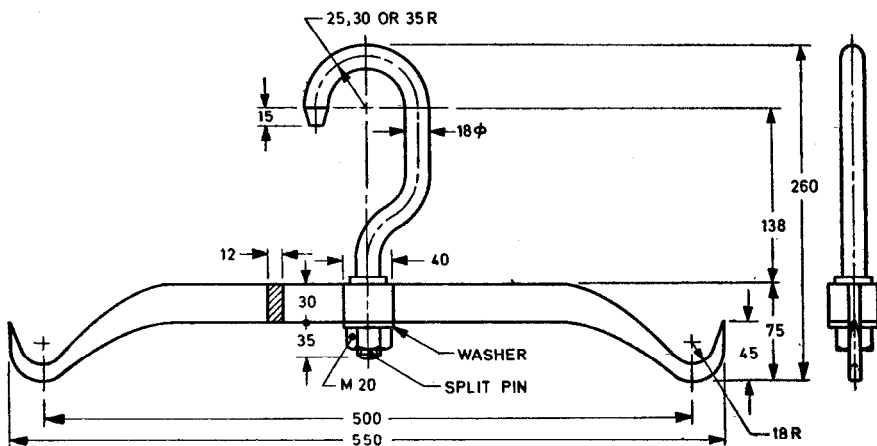
3. MATERIAL OF CONSTRUCTION

3.1 The hog gambrels shall be constructed from the following material:

- a) *Hook Rod* — cast steel conforming to IS : 1030-1962*.
- b) *Gambrel Rod* — mild steel conforming to IS : 226-1969†.
- c) *Self Locking Nut* — conforming to IS : 1363-1967‡ and IS : 1364-1967§.

4. DIMENSIONS

4.1 The dimensions of the hook rod and the gambrel rod shall be as given in Fig. 1.



All dimensions in millimetres.

FIG. 1 DETAILS OF HOG GAMBREL

5. REQUIREMENTS

5.1 The weight of a hog gambrel shall be 2·5 kg.

*Specification for steel castings for general engineering purposes.

†Specification for structural steel (standard quality) (*fourth revision*).

‡Specification for black hexagon bolts, nuts and lock nuts (dia 6 to 39 mm) and black hexagon screws (dia 6 to 24 mm) (first revision).

§Specification for precision and semi-precision hexagon bolts, screws, nuts and lock nuts
(dia range 6 to 39 mm) (*first revision*).

5.2 The hook shall not bend when weighed with a load of 120 kg.

5.3 The gambrel rod shall rotate freely on the hook.

5.4 The hook shall be designed taking into consideration the dimensions of the bar and pipe available for overhead rail system (*see* IS : 6628-1972*). The hook shall make maximum contact on the rail to ensure easy mobility.

5.5 The end hooks of the gambrel rod shall be pointed.

6. WORKMANSHIP AND FINISH

6.1 The hog gambrel shall hang horizontal.

6.2 The components shall be free from flaws, burrs, pits and sharp edges. The components shall be galvanized before assembly for the protection from rust and corrosion.

6.3 The welding of the components shall be satisfactory in all respects. It shall not be porous or brittle.

7. MARKING AND PACKING

7.1 Marking — The hog gambrels shall be marked with the following information:

- a) Manufacturer's name or trade-mark, if any;
- b) Year of manufacture;
- c) Batch or code number; and
- d) Weight of the gambrel.

7.1.1 The marking shall be done at an appropriate and visible place.

7.1.2 Each hog gambrel may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

*Specification for slide rails for use in abattoirs.

7.2 Packing — The hog gambrels shall be packed for safe handling in transit as agreed to between the manufacturer and the purchaser.

8. SAMPLING

8.1 The method for drawing representative samples of hog gambrels and the criteria for conformity shall be as given in Appendix A.

APPENDIX A

(Clause 8.1)

SAMPLING OF HOG GAMBRELS

A-1. SCALE OF SAMPLING

A-1.1 Lot — In any consignment all hog gambrels of the same type, shape and size manufactured from the same material under relatively similar conditions of manufacture shall be grouped together to constitute a lot.

A-1.2 For ascertaining the conformity to the requirements of this specification the test shall be carried out separately for the each lot.

A-1.3 The number of hog gambrels to be sampled from a lot, for ascertaining conformity to the requirements of this specification, shall be according to col 2 of Table 1.

TABLE 1 SCALE OF SAMPLING AND PERMISSIBLE NUMBER OF DEFECTIVES FOR HOG GAMBRELS

NUMBER OF HOG GAMBRELS IN A LOT	FOR VISUAL AND DIMENSIONAL TESTS		FOR TESTS OTHER THAN VISUAL AND DIMENSIONAL	
	Sample Size	Permissible Number of Defectives	Sub-sample Size	Permissible Number of Defectives
(1)	(2)	(3)	(4)	(5)
Up to 100	5	0	2	0
101 „ 300	13	1	3	0
301 „ 500	32	3	5	0
501 „ 1 000	50	5	8	1
1 001 and above	80	7	13	1

A-1.4 The hog gambrels shall be selected at random from the lot and for this purpose a random number table as agreed to between the purchaser and the supplier (*see* IS:4905-1968*) shall be used. If such a table is not available, the following procedure shall be adopted:

Starting from any hog gambrel in the lot count them as 1, 2, 3, ..., up to r in a systematic manner, where r is equal to the integral part of $\frac{N}{n}$, N being the total number of hog gambrels in the lot and n the number of hog gambrels to be selected (*see* Table 1). Every r th hog gambrel thus counted shall be separated until the requisite number of hog gambrels to be obtained from the lot to give the sample for the test has been obtained.

A-2. NUMBER OF TESTS AND CRITERIA FOR CONFORMITY

A-2.1 Tests for Visual and Dimensional Characteristics — The hog gambrels selected at random according to **A-1.4** shall be examined for the visual and dimensional characteristics. A hog gambrel failing to satisfy any one or more of these requirements shall be considered as conforming to the requirements for these characteristics if the number of defectives in the sample does not exceed the number given in col 3 of Table 1.

A-2.2 Tests Other Than Visual and Dimensional — If the lot passes the tests for visual and dimensional requirements (*see* **A-2.1**), a sub-sample of size given in col 4 of Table 1 shall be taken from the hog gambrel selected in **A-2.1**. Each of the hog gambrels in the sub-sample shall be tested for the requirements of characteristics other than visual and dimensional. A hog gambrel not satisfying any one or more of these requirements shall be regarded as defective. The lot shall be considered to conform to these requirements if the number of defectives in the sub-sample does not exceed the number given in col 5 of Table 1.

*Methods for random sampling.

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MEAT AND MEAT PRODUCTS

IS:

- 1729-1960 Pork
- 1743-1960 Meat of sheep and goats canned in brine
- 1981-1962 Animal casings
- 1982-1971 Code of practice for ante-mortem and post-mortem inspection of meat animals (*first revision*)
- 2475-1963 Smoked bacon
- 2476-1963 Ham
- 2536-1963 Mutton and goat flesh — fresh, chilled and frozen
- 2537-1963 Beef and buffalo flesh — fresh, chilled and frozen
- 3044-1965 Mutton and goat meat, curried and canned
- 3060-1965 Pork sausages, canned
- 3061-1965 Pork sausages, fresh
- 4352-1967 Pork luncheon meat, canned
- 4393-1967 Basic requirements for an abattoir
- 4674-1968 Dressed chicken
- 4723-1968 Egg powder
- 4950-1968 Bacon rashers, canned
- 4951-1968 Ham, canned
- 5558-1969 Chicken essence
- 5960 (Part I)-1970 Methods of test for meat and meat products: Part I Determination of nitrogen content
- 5960 (Part II)-1970 Methods of test for meat and meat products: Part II Determination of ash
- 5960 (Part III)-1970 Methods of test for meat and meat products: Part III Determination of total fat content
- 5960 (Part IV)-1970 Methods of test for meat and meat products: Part IV Determination of free fat content
- 5960 (Part V)-1971 Methods of test for meat and meat products: Part V Determination of moisture content
- 5960 (Part VI)-1971 Methods of test for meat and meat products: Part VI Determination of chloride content
- 6557-1972 Albumen flakes, non-edible quality
- 6558-1972 Code of practice for cold storage of shell eggs
- 6559-1972 Code of practice for ante-mortem and post-mortem inspection of poultry

INDIAN STANDARDS INSTITUTION

Manak Bhavan, 9 Bahadur Shah Zafar Marg, New Delhi 1

Telephone : 27 01 31 (20 lines)

Telegrams : Manaksanstha

Branch Offices:

'Sadhna', Nurmohamed Shaikh Marg, Khanpur
 F Block, Unity Bldg. Narasimharaja Square
 534 Sardar Vallabhbhai Patel Road
 5 Chowringhee Approach
 5-9-201/2-A (First Floor), Chirag Ali Lane
 117/418 B Sarvodaya Nagar
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Bangalore 2	2 78 49
Bombay 7	35 69 44
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